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AUTHOR Clarridge, Brian P.: And Others
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ABSTRACT

A search, primarily by telephone, in 1974 successfully located 97.4 percent of a sample of 10,317 subjects who had graduated from Wisconsin high schools in 1957. This high response rate was obtained partly because the original study incorporated several diverse types of identifying items which could lead to the future location of the respondents; but the methods used in the search also contributed to the success, as did its organization and management. The 1974 search was even more successful than a search of the same group in 1964. Ten stratified random samples were formed and searched, one at a time, so that a representative sampling could be assured in case the search, or the ensuing study, had to be terminated before the completion of the total survey. Personnel for the search were carefully trained and motivated. They worked on two-hour shifts. Names and 1964 addresses were obtained from computer tapes. Routine procedures and forms for recording the results of telephone calls were established. State tax records and credit searches were not used. Examples are given of some of the difficult or unusual but successful searches. (Author/CTM)

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TRACING MEMBERS OF A PANEL: A 17-YEAR FOLLOW-UP*

Brian R. Clarridge
Linda S. Sheehy
Taissa S. Hauser

CDE Working Paper 76-23

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ABSTRACT

A search for members of a sample of 10,317 subjects who graduated from Wisconsin high schools in 1957 successfully located 97.4 percent of the members of the original sample in 1974; 88.6 percent of the original sample were interviewed in 1975. Methods used in this search, ranging from a search of telephone books to contacts with neighbors, produced short lines of contacts leading to respondents. Sex, rural-urban, geographic and educational differentials in the difficulty of locating respondents are discussed as well as estimates of the amount of time required to find each portion of the sample. A high response rate was obtained largely because the original study incorporated several diverse types of identifying items which could lead to the future location of the respondent.

Introduction: The panel study, in which the same subjects are observed or interviewed repeatedly, is recognized as a powerful means of studying social development and change over time. Yet the potential costs, in both time and money, of maintaining or renewing contact with members of a sample have often led researchers to rely on weaker research designs. Moreover, panel attrition often threatens to invalidate the findings of longitudinal studies.

The importance of finding ways to minimize attrition in longitudinal studies has been highlighted by two fairly recent developments affecting social surveys. Response rates in surveys of the general population have declined sharply in recent years, primarily because of increased numbers of refusals and persistent not-at-homes; this problem suggests the importance of reducing those types of nonresponse which may be more tractable than refusal. Moreover, social science researchers rely increasingly on common sources of survey data from large samples of representative populations. Prominent among such surveys are the University of Michigan Survey Research Center's panel studies of Income Dynamics (Duncan and Morgan, 1975), the Youth-In-Transition Surveys (Johnston and Bachman, 1972), the National Longitudinal Surveys of Young Men and Women, Women in the Childbearing Years, and Men in the Pre-Retirement Years, carried out by the Center for Human Resources Research of Ohio State University (Andrisani and Kohen, 1975; Parnes et al., 1975; Roderick and Kohen, 1973; Parnes et al., 1974), Project Talent's several panels of youth first surveyed in 1960 (American

Institutes for Research, 1972; Wilson and Wise, 1975; Carrel et al., 1975), and the Office of Education's panel study of the high school class of 1972 (Dunteman and Bailey, 1975). The consequences of attrition in these samples may have a large impact on the cumulative findings of social science research.

While reports of successful large-scale and long-term panel surveys are not unknown, notable failures are also common. The major factors affecting tracing failure are the size, mobility, and dispersion of the sample, the elapsed time between waves of the survey, and the intensity and ingenuity of the search procedure. We think the last-named factor is especially important, for half-hearted efforts to trace respondents perpetuate the persistent myth that uncontrollable factors prevent successful tracing operations. Too often the search is left to individuals who are not involved with or do not have a vested interest in the research and the quality of the data.

In some cases it is difficult to separate tracing failures from refusals and other sources of nonresponse, but we think that the following results are typical of the retrieval rate in the best panel studies. In 1964 Sewell and Associates located 91 percent and obtained information on 87.3 percent of over 10,000 Wisconsin high school seniors who had responded to a questionnaire in 1957 (Sewell and Shah, 1967): these are the same students on whom this report is based. In 1968, Spaeth and Greeley (1970) located about 90 percent of the members of a sample of 1961 college graduates, and they obtained completed mail questionnaires from about 90 percent of those located. In 1970 Alexander and Eckland (1973) obtained current addresses for 84 percent

of a national sample of 2000 young men and women who had been high school sophomores in 1955. With annual follow-ups carried out by the U.S. Bureau of the Census, Herbert Parnes and his associates have kept all forms of nonresponse to the National Longitudinal Surveys of Young Men and Young Women to a minimal level; in the fifth year of the survey the location of 97 percent of the national sample of young men was still known (Andrisani and Kohen, 1975), while in the third year of the survey the location of nearly 98 percent of the women was known (Roderick and Kohen, 1973). In a small (N=442) sample of Lenawee County, Michigan men, who were first surveyed at age 17 in 1957, Haller and Featherman located 82.3 percent of the men fifteen years later (Featherman and Carter, 1976). In a 15-year follow-up of the sample of students from Illinois high schools which James Coleman studied in The Adolescent Society (1961), Tenne (1975) succeeded in tracing approximately 80 percent of the sample in 1972. Crider et al. (1972) report that they located current addresses in 1966 for 95 percent of a sample of 2,344 persons who had last been interviewed in a 1957 follow-up of a survey started in 1947. The overall tracing rate from 1947 to 1966 was about 80 percent. In 1972 McAllister et al. (1973) successfully traced 85 percent of a sample of 600 persons whose families had first been contacted in a large California city in 1963, when the members of the sample were between the ages of 9 and 15. In one of the best known studies, Project Talent, response rates to mail surveys carried out eleven years after the nominal year of graduation from high school ranged from 20 to 29 percent and varied inversely with

the grade level of the student in 1960 (Carrel et al., 1975:3). In general, tracing failures as well as refusals contributed heavily to their low survey response rates.

While there have been several reports of successful tracing attempts (Eckland, 1968, Crider et al., 1972; Carrel et al., 1975; McAllister et al., 1973), a description of the present effort may be useful in several ways. First, our tracing operation was carried out mainly during the calendar years 1974-75 and our follow-up survey in calendar year 1975. The recency of our experience strongly indicates that changes in receptivity to surveys have not made it impossible to carry out a successful large-scale follow-up panel study. Second, our sample differs in important ways from several of those for which successful follow-ups have previously been reported. It is very large (more than 10,000 persons) and geographically dispersed, and the elapsed time since the last direct or indirect contact with the respondents ranged from 10 to 17 years. Third, we believe that finding people is more a craft than a science (cf. McAllister et al., 1973). The description of successful searches may be the main means by which the craft may be improved, given the variation in the characteristics of samples and the information available about them from one panel survey to another. Fourth, we want to emphasize our impression that the organization and management of the search procedure plays an important part in its success, a part which is not adequately portrayed by the codification of information sources and search procedures. Finally, we can provide some information on the cost of these procedures both in time and money.

We are reporting on a search for members of a sample of 10,317 men and women who were seniors in Wisconsin high schools in 1957. The post-high school experiences and achievements of this sample have been studied extensively by William H. Sewell and his associates. Data for these studies came from questionnaires filled out when the students were seniors in high school, a 1964 postcard survey directed to the students' parents (supplemented by telephone calls to parents who had not responded) (Sewell and Shah, 1967; Pavalko and Lutterman, 1973), Social Security earnings histories and Wisconsin tax records (Sewell and Hauser, 1972; Sewell and Hauser, 1975), and a round of telephone interviews in 1975.

A tracing operation carried out in 1974 successfully located 97.4 percent of the original members of the sample; this figure includes 99 percent of the 9,007 persons for whom responses were obtained in the 1964 survey and 86.2 percent of the 1,310 persons for whom no responses had been obtained in the 1964 survey. Ultimately, 88.6 percent of the members of the original sample were interviewed by telephone during 1975. This compares favorably to the 87.3 percent of the original 10,317 people for whom data were obtained in 1964. Those interviewed comprised 91.4 percent of the original sample who were not known to be deceased, disabled, or currently living outside the United States. The response rate is slightly higher for females than males, 92.3 percent and 90.5 percent, respectively. The response rate is 93.5 percent among persons whose parents responded in 1964 and 77.0 percent among 1964 nonrespondents; this differential is

is mainly due to tracing failure. We believe that our success was in large part attributable to our extensive use of the telephone, both during the search and interviewing processes, as well as to certain features of the organization of the search procedure.

The following discussion is in three parts. First, we review the history and design of the study, giving attention to the research design and the organization of the tracing operation. Second, using a subsample of cases from the production tracing operation, we describe the time required and percentage of cases found for various phases of the search. Finally, we describe certain relationships between social characteristics of members of the sample and the length and complexity of the tracing operation.

History and Design of the Study

In 1957 Professor J. Kenneth Little of the School of Education at the University of Wisconsin directed a survey of all Wisconsin high school seniors. More than 30,000 seniors filled in a questionnaire which asked about educational and occupational aspirations, plans for marriage or military service, high school experiences and social background. These data were supplemented with mental test scores and high school ranks ascertained from the Wisconsin State Testing Service and from the several hundred high schools, respectively. The original questionnaires and data were turned over to Professor William H. Sewell of the Department of Sociology in 1962. Sewell selected a random sample of one-third of the original respondents and improved the coverage of the test score and high school rank data. In 1964,

seven years after members of the sample had completed high school, Sewell and his associates carried out a mail survey of these students' parents, whose names and addresses had been given by the students on the original questionnaires. Parents were traced by forwarding postcards through the mails, by attempting to locate new addresses in the files of the Wisconsin State Tax Department, and by searching telephone directories and city directories for the location and telephone numbers of parents who had not responded to the various mailings. After five waves of mailing and a round of telephone interviews, a response rate of 87.3 percent was achieved. Of the 13 percent who did not respond, fewer than 4 percent were classified as refusals, and the remainder were tracing failures. There were no large differences between respondents and nonrespondents on variables which had been measured in the 1957 baseline survey (Sewell and Hauser, 1975: 26-41).

Late in 1973 the project directors, Sewell and Hauser, decided to contact the members of the one-third sample directly for the first time since 1957 in order to improve the measurement of certain social background characteristics and to obtain updated educational, familial, residential and labor force histories. In 1975, the projected date of the survey, most members of the sample would be about 35 years old. The men would be well-established in their careers, and most of the women who had born children would have completed their family formation. Thus it was thought 1975 would be an ideal time to collect additional data.

Because of the success of the 1964 restudy and recent follow-up studies carried out by others, Sewell and Hauser felt quite sure that it would be possible to achieve a high response rate even though a long period (17 years) had elapsed since the sample had been directly contacted and despite the fact that a relatively long interview would be required to obtain the necessary information from the respondents. As a first step they constructed a tentative questionnaire to be used in interviewing the respondents by telephone, borrowing heavily from the two national "Occupational Changes in a Generation" surveys of 1962 and 1973 and a similar statewide survey which was carried out in Wisconsin during 1973 (Featherman and Hauser, 1975). This questionnaire was pretested on a small sample of 1957 Wisconsin high school graduates who were not members of the sample and who resided in or near the Madison area. Using inexperienced student interviewers, 95 percent of the pretest interviews were completed. These interviews were carefully studied and on the basis of this and other pretests a final questionnaire was developed. The success of the pretests clearly indicated that there would be a high level of cooperation from the sample members if viable telephone numbers could be found for them.

In order to develop methods for the search and to test its feasibility, a small sample of 216 cases was drawn from the one-third sample. The sample was stratified according to respondent characteristics which were thought likely to affect the complexity and the success of the tracing operation. Nine respondents were randomly selected in each of the 24 cells in a classification of sex by educational

attainment in 1964 (high school graduate, some college, or college graduate) by rural or urban residence in 1957 and by state of residence in 1964 (Wisconsin, all other places). With considerable effort we found all 216 persons; thus, none of the factors in the tracing trial affected the ultimate success of the search.

At this point it was decided to undertake a large-scale tracing operation; yet only limited funds were available for the search, and no money was yet available to support the re-survey itself. In particular, it was not certain whether it would be possible to interview the entire one-third sample, or whether a subset of the sample would have to be selected for the 1975 survey. With these limitations in mind, the search was organized to make it possible to terminate conveniently at most any stage without sacrificing the quality of the coverage which had been achieved up to that time. To do this the one-third sample members whose parents had responded in 1964 ($N = 9,007$) were classified into 32 strata defined by the cross-classification of four categories of mental ability by four categories of socioeconomic status by sex. Each of these strata was then randomly divided into numbered tenths. Finally, ten equal-sized groups were formed by combining like-numbered tenths from the various strata. These ten groups were introduced into the production tracing operation one at a time, only introducing a new group when it was evident that the easy-to-find cases in the preceding group had been exhausted. In this way a mixture of easy- and hard-to-find cases was maintained throughout the tracing operation. The 1,310 cases for whom no response was

obtained in 1964 were treated as a separate stratum. These cases were introduced into the search process in sequential random tenths after it became clear that practically everyone could be found. The division of the sample into ten random groups was such a useful device that it was ultimately used to smooth the flow of work during the interviewing as well as in the search process. This research design would enable the termination of the search or interviewing process after the completion of any of the ten subgroups. That is, the survey could be terminated relatively quickly with the assurance of a representative sample of our population.

It had been decided at an early stage to use the telephone, rather than the mail, for most of the search. First, studies have demonstrated a higher response rate to telephone rather than mail contacts (Alwin and Jensen, 1976). The use of the telephone would give potential informants less of a chance to think of reasons not to be helpful and would help to convey our high degree of interest and enthusiasm for the project. Secondly, members of the project staff had access to five DAIN (Direct Access Intercity Network) lines rented by the University of Wisconsin-Madison, and both instate and out-of-state calls were inexpensive. Finally, by using telephones we could follow up or eliminate leads without the lengthy turnaround inherent in a mail search.

Since we wished to avoid direct contact with the respondents before the interview, both as a matter of courtesy and to minimize the opportunity for refusing to participate, respondents were traced

through their parents whenever possible. This strategy was advantageous because parents were less geographically mobile than the intended respondents. Of course, some parents had died, were uncooperative or could not themselves be located; and in these cases we attempted to trace potential respondents directly.

In retrospect we believe the organization and management of the search was an important factor in its success. The supervisory personnel included one full-time project specialist to coordinate the various activities of the study and three graduate students. These people were highly motivated to obtain a high response rate with good quality data. We believe that individuals who understand the overall goals of the study should be involved in every phase of a follow-up study including the tracing operation. Tracing can be carried out by inexperienced but not untrained personnel; in our case we used part-time undergraduate students. All students were hired for a probationary period of one month. During this time they were trained and the quality of their work was monitored daily. At the end of this month most were hired for the duration of the tracing phase, but some were kept on probation for an additional few weeks. There was a high turnover rate as students graduated and left town and others simply got bored and quit. Thus, we had to train new students several times during the one and one-half years of the tracing operation.

The training of these personnel consisted of an orientation by the project directors concerning the history and goals of the study as well as a general description of the panel study as a research design. It was believed that this information would make the students

appreciate the importance of their work in affecting the overall success of the study. In addition, a supervisor made several calls while small groups of students listened to the conversation on the telephone extensions. The outcome of these calls and the necessary paperwork associated with the calls were then discussed. The students then began telephoning respondents. The results of their calls were discussed with the supervisor until he/she was confident of the worker's ability. When calling residences we did not mind if the students did not sound too glib or polished. We think that occasional bumbling, nervousness and natural folksiness were helpful in establishing rapport with potential informants.

Five telephones were manned from 5 to 9 p.m. Monday through Friday, 9 a.m. to 9 p.m. on Saturday and 1 to 9 p.m. on Sunday. The students were assigned to telephoning in two hour shifts. We believed that efficiency would decline greatly if workers were permitted to telephone for more than two hours. Students who wanted to work for more than two hours at a time telephoned and did clerical work on alternate shifts. This two hour schedule was used for all routine calls to residences. These calls comprised approximately 90 percent of our telephone calls. Individuals who dealt with the more difficult cases, and who therefore called other sources, could work for longer periods of time since these calls were more varied and interesting. The telephone calls to residences were made during the evenings when most people are at home and the calls to businesses, alumni offices and other establishments were made during the working hours, Monday

through Friday. Different students were assigned to or selected for different types of calls depending on their personalities and ability to deal with different organizations.

At the beginning of each day cases not yet found were re-sorted into the appropriate stacks depending upon the next step to be taken. This sorting was usually done by the supervisors, who constantly monitored the flow of cases. It is important, when dealing with such a large number of cases and with many employees, to have systems of filing and record-keeping as well as clear rules for the flow of work. The supervisory personnel met frequently to discuss the progress of the tracing operation and the overall flow of work. The procedures were reordered and refined whenever it was deemed appropriate. Poor organization can lead to great confusion, waste of time and money and most important of all, tracing failure.

We maintained a small staff of expert searchers who continued to try to locate very hard-to-find respondents, including nonrespondents in 1964, even after the interviewing was begun early in 1975. In addition, these searchers attempted to relocate potential respondents who had been located in 1974 but who had moved again prior to the interview and could not easily be relocated by the survey interviewers. Out of a subsample of 896 cases, 32 of those originally found required a second search. All but 3 of these 32 people were found again.

Identifying Information and Search Procedures: At the outset a lot of information was available for tracing persons whose parents responded in 1964; however, very little was known about the persons

for whom no response was obtained in 1964. Some of the identifying information could be used directly in the search for a parent or respondent, while other information was useful only as background in choosing potential leads. The information available for each group is summarized in Figure 1. Our strategy was to record and use the identifying information which was most likely to lead us quickly to

[Figure 1 about here]

the parent or respondent; the background information was used only when the more obvious leads failed.

Names and 1964 addresses of the members of the sample and of their parents had been stored on computer tape (separately from the survey data which had been used in earlier analyses). The name, sex, stratum and random group number, case number, high school of the student, his or her own address, and the parents' most recent address were printed out on gummed labels. These were affixed to the first sheet of a contact record and followed the student through the search procedure. As needed, additional pages could be stapled to the first so that it was always possible to review the entire search record. (An example of an entire search record is located in Figure 4 and discussed in detail later in this paper.) The contact records were laid out with marked spaces for each type of additional information which might be obtained from our records or from other sources and this format proved helpful in the search; thus, all major "clues" would be readily accessible and in a standard form. This made it possible for some of our expert searchers to glance at a case rather quickly and

suggest useful new leads. Additional pages of the contact record were used to record each and every attempt to locate the respondent or an informant. For each attempted contact we recorded the date, the time, the searcher's initials, the phone number dialed, the name of the person reached, the relationship, if any, of this person to the respondent, and a detailed description of the outcome of the call. Because of the high frequency of name changes among women, the early stages of the search were frequently different for men and women; thus, it was convenient to color-code the contact records to designate the sex of the intended respondent.

The Production Tracing Operation

In this section we outline the search process based on our experience with 896 cases from the ninth of the ten random subgroups of 1964 respondents in the sample. All statistics reported and figures shown are based on this group.

The basic telephone book search: parents. We first searched for a telephone listing for parents at their 1964 address using a current set of telephone directories available at the Madison Public Library for the entire state of Wisconsin and for major out-of-state cities. About 76 percent of the respondents, and a much larger proportion of their parents, lived in Wisconsin in 1964. Most localities were covered by the set of directories; in other cases long distance telephone operators were used as informants (see below). Telephone directories for rural areas usually contained separate listings for several nearby towns; when necessary we checked all towns

in the appropriate directory.

Of the 896 individuals in the subsample, 23 were found prior to our search for this group*; thus, we only performed the telephone book search for 873 individuals. The telephone book search for parents yielded potential information on parents of 855, or 98 percent, of the intended respondents. This search took 58 hours; thus, the average time spent searching for each individual was approximately 4 minutes.

There were three possible outcomes of this search: (A) the parent was listed at the 1964 address or a different address in the same telephone book, (B) the parent, usually the father, was not listed in the telephone book, but other same last named persons, possibly including the respondent, were listed, (C) there was no listing of anyone with the same last name in the entire book, or there were too many listings of persons with the same last name.

(A) Live number for parent. In almost all cases when we were able to obtain a live number for a respondent's parents, we were able to call the parents and confirm the location of the potential respondent. This particular outcome is illustrated in Figure 2 which represents part of a page from a telephone book. If we were looking

[Figure 2 about here]

for a parent named Ernest Johr who lived at 730 Baltzell Street, we would try to reach him at 233-1664. (All persons, organizations, addresses, telephone numbers, and places mentioned in the illustrations throughout this paper are fictional.) This is a straightforward

*While searching for respondents in earlier groups, we obtained some names and addresses from fellow classmates.

procedure and represents the most typical outcome. We did not complete the search with this step when (1) the phone was never answered, (2) the number was no longer in service, (3) the phone was answered but belonged to someone other than the listed party, or (4) the parent refused to give or did not know the location of his child. In the first three cases we returned to the telephone book to see if others with the same last name were listed (step B). In the last case we began searching for the respondent at his own 1964 address (step 2 below). We assumed, correctly in most cases, that a refusal from a respondent's parents was not a refusal from the respondent him- or herself.

(B) No listing for parent, but listings for others with the same last name. If there was no listing for the parent, but others with the same name were listed, we first checked to see if the respondent himself was listed. We then checked the addresses to see if any were the same as the parent's address in 1964. We assumed that the person residing at this address was related to the respondent. Again referring to Figure 2, if we were looking for a parent named Bert Jonas at 1026 Saybrook Road, we would first note that there is no listing under that name, but that there is a Robert Jonas living at that address. We would thus try 271-9610 before any other numbers.

If we found no one of the same name living at the parent's 1964 address, we copied some (three to eight) of the telephone numbers of persons with the same last name as the parents. If many names were listed, we selected those names and numbers which we thought were most likely to lead us to the respondent. We found that the people

most likely to be related to the respondent were those with listings such as Mrs. Smith or J.K. Smith (these were frequently widowed mothers of the respondents), and those with a telephone prefix (the set of three digits immediately following the area code) representing the geographic area in which the parents lived in 1964.

An example of these two approaches can be illustrated by again referring to Figure 2 and searching for Willert Johnson at 219 Bedford Street. Since no one of that name or address is listed we might call

V. Johnson	831-1497
V.D. Johnson	274-0485
V. J. Johnson	244-5370
W. A. Johnson	249-5435

on the assumption that one of them is his widow and is listed under her initials. If these leads were not profitable we could find out that Bedford Street is in the 256 prefix area and then call Virgil Johnson at 256-3391 in hopes that he is related to or has heard of the Johnson we seek.

If no persons with the same last name were listed, or if a very large number of persons with the same name was listed, or if none of the listed persons were related to or knew anything about the respondent, we continued our search as described below. To avoid contacting people more than once and to obtain any possible leads we would always probe. When talking to people of the same last name we asked if they knew anything about the parent or the respondent or the name of anyone who might be able to help.

(C) No listings or too many listings for people with the same last name. If we were unable to find listings of persons with the same last name as the parents, or if the large number of same-last-named persons made this approach impractical, we conducted a telephone book search for the respondent. We felt that the risk of alienating potential respondents was worth taking at this stage since direct contact was the most efficient of the remaining search methods.

Respondents. In searching for the respondent we followed the same telephone book search procedure outlined above. For men and for women who were not married in 1964 this task was straightforward. For women who were currently married in 1964 it was necessary to ascertain husbands' full names from the 1964 questionnaire.

We located 83 percent of the respondents through their parents and another 9.5 percent of the respondents by searching for them directly. This raised the cumulative percentage to 92 percent. For those individuals for whom we had any information from the library, it took an average of 13 minutes per case to pursue these leads; this was in addition to the 4 minute average expenditure during the telephone book search.

Additional search procedures. When the 1964 addresses did not lead us to the respondent, we reviewed each case to decide what the most promising avenues for the search might be. For example, if the respondent had a specific occupation and the name of his/her employer was listed, but if he/she had attended a small college and did not graduate, we would try the employer or, in appropriate cases, a

licensing association first. If the respondent graduated from a large university or private school that had an active alumni association, we would try the alumni association first. If the respondent or his/her parents lived in a town which had a city directory, and if there was no helpful information concerning his/her occupation or schooling, we would call neighbors. If the respondent was from a small town we might call the post office in his/her home town before pursuing any other lead. In making these decisions we were guided by our accumulated experience; these decisions were not automatic or trivial. In general, we exhausted information from the 1964 questionnaire before going back to the 1957 questionnaire. The following procedures are listed in the typical order in which they were applied although not all of these methods were applicable in every case. For the purpose of compiling statistics for this paper these procedures were followed in the order listed below, and each method was exhausted thoroughly before continuing with the next method.

(A) Occupational leads. One of the most useful pieces of information in the 1964 questionnaires was the occupation of the respondent. In the case of a married woman the occupation of her spouse as well as her own occupation was listed. The questionnaire requested the present occupation, job title, and the name of the employing firm. With this information we could trace many respondents (or their spouses) through their 1964 employers. In addition, many respondents were in occupations or professions where they could be traced through a trade union or a state or national licensing system.

For example, the State of Wisconsin has a nurses licensing registration office which we contacted every time we were searching for a respondent who was working as a nurse, was in nurses training in 1964 or had indicated in 1957 that he or she would like to become a nurse. Most states require licensing for people in the medical professions and for welders, plumbers, real estate agents and many other occupations. Often, we were able to exploit these leads by telephone, but in some instances our requests for information had to be sent through the mail. If a search for the respondent through a specific employer or through a trade with a licensing bureau or union was not feasible, we would look in the yellow pages for potential employers under general categories (e.g. upholsterers).

We were able to find 1.5 percent of the subsample through their employers: this was 13 of 37 for whom we had viable leads.

(B) Alumni leads. For respondents who were college graduates or near-graduates by 1964, a telephone call to the alumni association of their college or university frequently gave us a more recent, or even current, address. Some alumni associations appeared to be sensitive to possible invasions of privacy, but very few refused to cooperate once we explained the purposes of the study.

An additional 2 percent of our intended respondents were found through alumni leads, bringing the cumulative percentage located to 96 percent. We found 20 of the 37 individuals who had colleges or universities listed. On the average, 50 additional person-minutes were spent in following occupational or alumni leads for each successfully located respondent.

(C) Neighbors. One of the more time-consuming but productive methods of inquiry was to telephone persons living at or near the 1964 or 1957 address of the parent or student in hopes that these persons had some knowledge of our respondent. For this part of the search we relied on city directories which typically contain listings of the population of a city by street address as well as by last name (see Figure 3). These directories are located in the State Historical Society at the University of Wisconsin-Madison for many cities in the state of Wisconsin. The fact that there were no city directories for many of the smaller towns did not matter since the rural route addresses in these directories were not usually helpful. Most of the directories were three to six years old but this did not hamper our search since we were interested in locating persons who lived in the neighborhood when our family of interest resided there. When directories were missing, we called local public libraries, and librarians often gave us extensive directory information over the phone.

We started with the last known address and located the appropriate directory. We copied the names and telephone numbers of the persons currently living in the house at the last known address, of neighbors in the houses immediately adjacent, and of the neighbor directly across the street. We then telephoned each of these families and inquired about the location of the parent or respondent. For example, Figure 3

[Figure 3 about here]

shows the 300 block of Park Avenue as it appeared at two dates ten years apart. Let us suppose the respondent we seek is Eldon K. Born

of 309 Park Avenue. The first thing one can see in Figure 3 is that the neighbors at 303, 308 and 311 Park Avenue are the same in the more recent listing as they were when the respondent lived there. This makes them good prospects for information on the respondent. Our procedure would be to call the neighbors in the following order:

- 1) Louis Milsted - lives in the house in which the respondent used to live.
- 2) Mabel Sell and
- 3) Jacob Katte - next door neighbors who lived in the neighborhood when the respondent lived there.
- 4) Blanche Wick - neighbor across the street who lived in the neighborhood when the respondent lived there.
- 5) John Crosetto - neighbor across the street who may not have lived there when the respondent did.

Figure 3 also shows the listing by last name for the Borns from the 1964 directory. Note that it gives his wife's name (Agnes) and his occupation and place of employment (teacher, North High School). This information was helpful since neighbors often remembered the family only vaguely and could provide us with information only after we had jogged their memory. For example, if the neighbor didn't remember Eldon Born right away the caller might say "his wife's name was Agnes Born and he worked as a teacher at North High School". If the neighbor couldn't help us at all we generally concluded the conversation by asking if there was anyone who had lived in the neighborhood for a long time and who might be able to help us. This often saved us time by immediately directing our attention to the most profitable lead in the neighborhood. If the neighborhood population

was transient or no one remembered the respondent, we would then try the occupation lead; that is, we would call North High School provided we hadn't done so at an earlier stage.

Because of the additional library work involved and the likelihood of calling persons who had not known the respondent, the leads obtained from the city directory often took a great deal of time to pursue. Thus, this method of finding people became efficient only after we had exhausted alumni and business leads.

We found 1.5 percent of respondents through city directories. In finding people by this method, we averaged 65 additional person-minutes and found 13 of 24 individuals for whom we obtained leads.

(D) High schools. When we contacted a respondent's high school we were often able to obtain the names of the respondent's siblings and/or the names of colleges for which transcripts had been requested. Sometimes, someone working in the high school knew the respondent and his/her current address or the city in which he/she lived.

Late in the search, our efforts to locate respondents through their high schools were greatly hampered by the passage of the Buckley Amendment to the Freedom of Information Act and by locally strict interpretation of this law which restricted the kind and amount of information school personnel were willing or able to give us. This became a "Catch 22" situation. We would call to request the names of the respondent's siblings or a list of schools to which transcripts had been sent. The school would inform us that we had to obtain permission in writing from the respondent before information could be

released. In our view, the law did not, in fact, prohibit schools from providing the innocuous information which we wished to obtain, but the effect of the law was virtually to eliminate this source of information.

(E) Post offices. Especially in rural areas, postal employees were often able to lead us directly or indirectly to a respondent. For example, we might be told that the respondent's father's widow had moved to Milwaukee, or that someone in town was a good friend of the parent or the respondent and could give us the information we were seeking. Often a letter carrier who answered the phone knew the respondent and was willing to forward a letter, even though no forwarding address was on file. Post offices in larger cities were less willing, and frequently unable, to provide us with information. In this subsample, three of the nine persons searched for in this way were located.

(F) Military service. Sometimes persons who were in the military service as long as seven years after high school graduation (in 1964) were still in the military in 1974. The military provides locating services through a toll-free number in Washington, D.C. for the families of individuals in the military. Since we were searching for a number of individuals, we were directed to the following military locator services: the Military Personnel Center, Alexandria, Virginia; the Military Personnel Records Division, Randolph Air Force Base, Texas; and the Bureau of Naval Personnel, Washington, D.C. We sent letters to these various locator services with several names

per letter. A response was received two to eight weeks later. Many of the individuals located in this way could not have been found by any other method because of the high geographic mobility of military personnel.

In our subsample we requested information on eight individuals in the military service and received helpful leads for three of them. In general, we found that military locators were able to help in nearly every case where we had a service identification number or a Social Security number.

(G) Informants. As a last step in the search process, we sent letters to persons already interviewed asking about their high school classmates whom we had not been able to find. The response rate was very low, since we were asking about our most difficult cases. However, almost every return letter led us directly to an intended respondent. We might have profited by using sample members as informants earlier in the search; however, we were attempting to minimize contact with respondents prior to the interview.

Using information from post offices, the military service and informants, we were able to locate an additional 1 percent of the respondents, bringing the cumulative percentage located in this random group to 98.6 percent. These final phases of the search were very time-consuming, because we often had to try most of these methods in order to get one good lead. On the average it took over an hour and one-half total time to locate each person found.

(H) Letters. Letters were sent to parents, respondents, employers

and other informants when we were not able to obtain a confirmed address and/or phone number over the telephone. They were used to obtain unpublished telephone numbers from some respondents. Also, when parents or employers were reluctant to give us information over the telephone we would offer to send them a letter to convince them of the legitimacy of the study. If the parent or student had moved recently, we would send a letter with the note ADDRESS CORRECTION REQUESTED on the outside of the envelope and would often receive a card with a forwarding address from the post office. Licensing associations and military locator services preferred to respond to letters rather than telephone calls, and we usually sent a request for information by letter when we were interested in obtaining information on more than one person from any given source.

(I) Final Procedures. We closed only those cases in which we were able to ascertain the current name, address, and telephone number of the intended respondent from a telephone report given by the intended respondent's parent, his or her spouse, the respondent him- or herself, or a responsible child of the respondent. Many other potential informants, such as distant relatives, friends, employers, or neighbors, could not verify that the potential respondent had in fact graduated from a particular Wisconsin high school in 1957. However, in confirming the location of the respondent, we wanted to be sure he or she was the person of that (present and/or maiden) name who had been a senior at a named Wisconsin high school in 1957. This was rechecked at the time of the interview with the respondent, and

in only two cases out of almost 10,000 interviews did we attempt to interview the wrong person; we are reasonably sure that one of these cases was a clever refusal.

After the location of a respondent had been confirmed, and the information recorded in a standard form on the contact record, the record was edited and checked for spelling and completeness against a master list of the names of members of the 1957 sample. Frequently, corrections in the spelling of names, the addition of middle names, and the omission of zip codes were handled at this stage; in about a dozen cases we found that the wrong individual was interviewed in the 1964 survey. After editing, the location information was coded, punched and stored on computer tape for use in printing cover sheets for the interviews. In retrospect, we think it unfortunate that we did not have the interviewer who confirmed the location of the respondent record the current location on a form which could be given directly to a keypuncher. This would have eliminated a costly, time-consuming, and error-prone coding process.

Unused Methods. There were three other potential sources of information which we did not use. In 1964, parents of the members of the Wisconsin sample were traced through State tax records; we did not attempt to exploit this method in 1974. Finally, credit searches would have been possible but costly and we decided there was no need to use this method.

[Figure 4 about here]

A Typical Case. Figure 4 shows our tracing record for a typical case. The intended respondent is John Bones (a fictitious name) and his parent is Ruth Bones. Both lived in a large city in 1964. Our search of the telephone book for that city revealed that there were no listings for either the respondent or his parent, but there were two other people listed with the same last name. Calls one to three revealed that these people were not related to John Bones or his mother. Our next step was to check the 1964 information for the respondent's post-high school education or occupation. We learned that he had attended Largeville Tech and that he was working at the A and B Company in 1964. Calls four and five pursued these leads unsuccessfully. Next we gathered information on the neighbors using the parent's 1964 address. The information recorded in Figure 4-4 was found in a current city directory. Calls six to eight show that a former neighbor knew the respondent's sister who in turn was able to give us the respondent's current address and telephone number.

Unusual Cases. In trying to locate the last 5 percent of the respondents some of the cases were unusual and a brief description of the steps followed to locate these people will give the reader an idea of the persistence, creativity, and luck necessary to locate hard-to-find people.

George Applebee was a college graduate from a small town. His parents were not listed in the telephone book, so we contacted the twelve people in his home town with the same last name. They had no knowledge of him. Applebee's college alumni association gave us a telephone number for him. This number belonged to a moving company

in an eastern state and had been its number for some time, but the secretary of the moving company thought the name sounded familiar. She returned our call with the name of George Applebee's employer in an adjoining state. She had obtained this information from a friend of her parents. While Applebee may have used this moving company at some time, there was no logical connection between him and the secretary. Applebee had no telephone listed in his name. Many calls were made to his place of employment, but he was never there. Finally, his co-workers told us names of friends, and the friends in turn gave us the name of his part-time place of employment where he was finally contacted. In all, it took 32 calls to locate George Applebee.

The mother of Sam Brown was contacted immediately but refused to provide us with any information about her son. He had moved from his 1964 address, leaving no trace. His occupation was listed as janitor, and our record showed no place of employment and no further schooling or military experience. A secretary at his high school remembered a request for his transcripts from a prison in a distant state. The state and federal prisons were checked but Sam Brown was not a current resident. While checking the records of parolees, the state bureau of investigation located a 36 year old Sam Brown who had applied for a business license in 1969, which required a routine criminal record check. He had never had any other contact with the criminal justice system in that state and had received his business license. We were given Sam Brown's address from his driver's license which was three years old. He did not have a telephone

listed in his name, but we obtained the phone number of his place of employment through a neighbor. She went to the Brown home and talked to Mrs. Brown, who gave her Sam Brown's telephone number at work.

Dorothy Jones Duke was married after high school graduation and had moved to another midwestern state. Her husband was a salesman, but his place of employment was not listed. The Dukes no longer lived at their 1964 address and had no telephone listing in that town. The postal clerk in Mrs. Duke's home town told us that the recently widowed mother, Mrs. Jones, lived near Lake Michigan. Looking for a Jones with an unknown female first name or initial at an unspecified address near Lake Michigan is a hopeless task. We asked ourselves why a recently widowed woman would move away from the security of her home town and old friends to a large city. Maybe she had relatives in the new city. Dorothy Jones Duke's husband was listed in the telephone book, and Mrs. Duke was contacted.

The new wife of Ms. Thompson's ex-husband had no idea where Thelma Thompson lived but she suggested we contact the family services court where her husband sent his alimony checks. The court would not give us any information but did forward a letter from us to the first Mrs. Thompson. She responded from a state across the country and offered to give us the information we requested after we explained how she was found.

We wanted to locate Nancy Nunnley who was single in 1964, had two years of business school and worked as a secretary for a large company in a large city in a nearby state. There were no listings

for Ms. Nunnley or her parents. A co-worker of Ms. Nunnley remembered that she quit work to attend nursing school. Nancy Nunnley was not a licensed nurse in the state where she took her training so the alumni associations of several nursing schools were contacted. She had graduated from one of these nursing schools, moved to the west and married. The address given to us by the alumni association was no longer current but the nurses' licensing board of the western state provided the current place of employment where she was reached.

Judy V. Jones was a single female. In 1964 she was attending college and worked part-time in a doctor's office. Ms. Jones' parents were contacted and told us she was living in an out-of-state city but would be too busy to talk with us. Her college alumni association had no helpful information. Because of her work experience during college, we called nursing and related medical associations, but were not successful. There were twenty-two Judy, Judith and J. Jones in the city, but none was the intended respondent. The second time we contacted her parents they told us Dr. Victoria Jones would be too busy to be interviewed, but they gave us the street name of her medical office where she was finally contacted. We could have eliminated the twenty-two calls to the same name people and the second call to the family if we had not decided to limit our occupation search to types of employment in the medical profession traditionally held by women.

Kathleen O'Brownlee O'Brien married after high school. She had no further education, or work experience and her husband worked in

a large factory. Neither Mrs. O'Brien's husband nor parents had telephone listings. There were too many O'Briens to attempt a same name search but the four O'Brownlees were called. These relatives were totally uncooperative. Mr. O'Brien had left his job leaving no forwarding address and the former neighbors remembered the family but had no idea where they might be. We assumed that Mrs. O'Brien was Catholic, so we called the Catholic Diocese for her area and asked for the names of churches in the general area where the O'Briens lived in 1964. There were five churches in the immediate area; it was suggested that we try two in particular because people of Irish background were more likely to belong to them. The priest at the second church contacted led us to the O'Brien family.

Problems. Several problems which occurred during our search for panel members warrant mentioning at this point in our discussion. It is always important to use some identifying information (in our case high school attended) in addition to the name of the respondent to insure that the person located is indeed the person sought. Moreover, it is important to decide which sources are most likely to have correct information on the intended respondent. In our study we required that the confirmation of the current address of the respondent be made by his or her parent, spouse, or close relative, or by the individual him or herself. Information from other sources was always double checked. One extreme example is that of the college alumni association which told us that our intended respondent was deceased. In the process of confirming this information the student

was located alive and was eventually interviewed.

Although almost all of the persons we contacted were friendly and helpful, it is important to be prepared to deal with suspicious or hostile individuals. A caller always identified himself and gave a brief statement about the study. If an individual was still not convinced of the legitimacy of the study, he was invited to place a collect call to one of the study directors. Of the thousands of people contacted in our tracing operation, only six calls of this nature were received and all were dealt with satisfactorily.

In any social science survey it is imperative to treat all information confidentially. The project staff was careful not to discuss individuals by name with non-staff persons. Moreover, information concerning a former classmate was never given to another sample member upon request. If a respondent wanted to locate an old friend or all the people in his or her class for a 20 year class reunion, we would offer to forward a letter or contact the individual(s) ourselves.

We sometimes confronted situations in which people did not want to be found. This group included persons wanted for crimes, men who owed money for child support, and families who had moved frequently leaving a trail of unpaid bills. Sometimes the parents or spouse of an intended respondent would refuse to give us information because they wanted to protect the individual from harassment. In a few cases respondents had serious problems such as drug or alcohol addiction or mental illness.

As we became increasingly skilled in locating people, we were willing to try to locate the very hard-to-find respondents. In particular, there were 108 students for whom the only information we had was full name and name of high school. These students had been selected into the one-third sample, but their 1957 questionnaires had been lost prior to the 1964 survey. We were able to locate two-thirds of these people, primarily by using telephone directories and street directories for their home towns.

Some persons in our sample were located but were not interviewed, although technically it would have been possible to include them in the survey. This group included those living outside the United States, those with no telephone, and, in one case, a person in jail.

In any large-scale tracing operation such as this there are numerous sources of error. For example, when we reviewed the 1957 and 1964 questionnaires of some hard-to-find respondents we discovered errors in some of the identifying information. Once these errors were corrected, we frequently located the respondent quickly. We also found that our telephone book search was frequently a source of error. Sometimes a name was missed, and other times copying errors were made. Thus, when all avenues of search would fail, we found it helpful to return to the library. Another related source of error was the long distance telephone operator. Sometimes an operator would tell us that there was no listing for the person we were attempting to locate. If we had reason to doubt this information, we might call again. Sometimes a different operator was able to find the

needed telephone number. Alternatively, we would call the library in the city of interest and request information from the current city directory.

Social Characteristics and the Tracing Process

In general, we were struck by the high find rates for all individuals regardless of the variables on which we segregated them. However, minor variations were apparent and are worth reporting. We have looked for differentials in the percentage found, in the length and in the complexity of successful searches by sex, education and residence. The discussion is again based on the ninth of our ten groups on which detailed records were kept of the search procedure.

(Table 1 about here)

Table 1 presents results on the ultimate outcome of our search as a function of the sex, education and residence of the members of the sample. We were somewhat more likely to obtain a completed interview from women and individuals of rural background than from men and people from urban background. Education and place of residence in either 1964 or 1975 had little bearing on interview completion, but there was some variation in the reasons why no interview was obtained. College graduates were slightly more likely to be out of the country than non-graduates, while individuals with less education were not as likely to have telephones or to be found in the first place. The main reason for not interviewing instate sample members was refusal to be interviewed, whereas the main reason for out-of-state individuals not being interviewed was because a prior decision

had been made not to interview anyone who was outside of the continental United States.

(Table 2 about here)

Table 2 shows the distribution of the number of telephone calls which were made in order to obtain a confirmed telephone number, according to the same independent variables which were discussed in Table 1. More than a third of the sample members were located after a single call, and 66 percent were located after no more than three attempted contacts. At the same time, the distribution of successful searches by number of calls was very highly skewed to the right, with eleven or more calls required to locate slightly more than 9 percent of the cases. There were very modest differentials in the distribution of numbers of calls by social characteristics of the respondents with the only clear difference being that by 1975 residence. When a second variable, the day on which the respondent was found, was used as the dependent variable indicating the difficulty of the search (Table 3), differentials by residence and education became more distinct. Out-of-state respondents were harder to locate than instate respondents, with the distinction becoming

(Table 3 about here)

less clear over time. Those sample members whose educational achievement was "high school only" were the easiest to find, college graduates next, and those with some post high school education were the most difficult to locate.

Table 4 shows the social characteristics of the individuals with

(Table 4 about here)

respect to the method by which they were found. For women, knowing the married name helps most in locating sample members, whereas having a business lead is most useful for locating men. We were able to use alumni leads for college graduates in 1964 very effectively, even though we had not been able to find any of these same individuals via business leads. This could be because college graduates had had less time to establish themselves in the business community as of 1964 than those who did not go to college. There are only minor differences for individuals on the basis of rural or urban origin. But we had to resort to many more search techniques to find out-of-state respondents than instate respondents.

There was systematic variation in the time it took to locate the various sub-categories of our subsample. As might be expected, the early search netted a high return on our investment of time, and increasing amounts of time were invested in searching for each subsequent respondent. Figure 5 plots the average number of minutes

(Figure 5 about here)

spent searching and calling for each successive portion of the sample. It should be noted that each point on this graph represents the average time required to find the cases at that particular point rather than the average time for the cumulative total to that point. While we suspect that the shape of this curve might be generalizable to other searches, we were unable to find an appropriate function to describe the curve we obtained. Even if a function can be found, its parameters will certainly vary when applied to other searches.

Finally, the extra time and effort we put into tracing the final 8 percent of the subsample was effective in the sense that we found 80 percent of them and obtained completed interviews for 71 percent of those found. Table 5 shows how this interview rate differs from the previous 92 percent located. However, we cannot say unequivocally

(Table 5 about here)

that the added expense of locating the final segment of the sample was worth the completed interviews obtained. That judgment cannot be made until further analysis reveals how these cases may affect our substantive results. Theoretically, if the cases that comprise this portion of the sample are similar in their characteristics to the sample cases previously obtained, that is if the values of all the meaningful measured variables could be closely and reliably represented by statistics based on the cases obtained up to this point, then the expense of obtaining these completed interviews could have been avoided. It is noteworthy that the lower interview completion rate for this last segment of the sample was due mainly to the inaccessability of the respondents rather than increased refusal rates. Over 20 percent of the nonrespondents in the late search were in the deceased, no telephone, or outside the United States categories, while only 6 percent were refusals. Finally, we have demonstrated that under the conditions present in this study, if a respondent can be found, he or she can almost certainly be interviewed.

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Figure 1. Identifying information for 1964 respondents and nonrespondents

Identifying Information	1964 Respondents	1964 Nonrespondents
Parent's and student's 1957 address (the same household)	X	X
Parent's 1964 address	X	-
Student's 1964 address	X	-
Schools the student attended or graduated from prior to 1964	X	-
Student's 1964 occupation	X	-
Student's marital status in 1964	X	-
Female student's spouse's occupation	X	-
Student's status with respect to military service	X	-
<u>Background Information</u>		
Parents' education	X	X
High school rank	X	X
Student's occupational aspirations	X	X
Parent's 1957 occupation	X	X

Figure 2. Extract of Telephone Book Page

Johnson Timothy J A 3117 Furey dr-249-8002	Johnson Tim P VI 125 Elm Ltr se-257-3293
Johnson Todd 2154 Rauline dr-278-4694	Johnson Wm 1914 Forden dr-248-4142
Johnson V 234 Randolph dr-431-1497	Johr Ernest A 730 Baitzel-233-1664
Johnson V D 5305 Conroy Weston pl-274-0699	Johre Brian 1124 Fegen'd dr-278-5410
Johnson V J 404 Powers dr-244-5370	Johr The town 355e E Wash dr-249-1833
Johnson Vernon J	Johr's Wild cat club
5618 Conroy Weston pl-274-0134	44.1 Manpa dr-272-1787
Johnson Vern G 5209 Wm Ltr dr-271-5695	Johrst Ronald W 2013 Rae la-271-8586
Johnson Vernon U 513 Bourcier dr-233-1653	JOLIE SAILORS
Johnson Victor H	519 S. Michale blvd-238-4334
603 Deladanna Way-249-5917	Jam Lori A 424 W Dayton-257-34
Johnson Victor H	John Reid 424 W Dayton-257-2543
1601 Crest dr-233-1633	Johnette Elna Elm 165 Peachbl-256-1645
Johnson Victor W 705 Pioneer dr-244-7272	Johlette James Mrs 330 Morris st-256-4000
Johnson Virgil R 635 W Elm dr-256-3391	Johltte Wayne 424 Carman av-249-0067
Johnson W A 724 Crystal la-249-5435	Johlfie R Kch 4314 E ch dr-231-1-75
Johnson Walter B 1605	Johlie Raysh E S Peachblk dr-233-2325
1650 Monroe-257-0575	Jolly Albert E 5714 Lanett dr-271-1725
Johnson Wallace H 7126 Univ dr-236-1722	Jolly Jasper S 1402 Regent-257-8425
Johnson Walt R 5126 rd-271-5077	Jolly Praven C 2716 Grande Way-271-0256
Johnson Walter A Jr 922 Arden la-271-5194	Jolly Raymond 4801 Shesban av-238-4435
Johnson Walter A III	Jolly Tavern 848 Williamson-251-5958
6302 Putnam rd-274-1741	JON-EL HOUSE OF HAIR beauty salon
Johnson Walter Emmett	714 W. Rucker rd-258-4333
3701 Marquet-244-4621	Jon Yonick 305 N Frances-251-1670
Johnson Walter J	Jonah Hyslop-
5315 Painted Post dr-222-6179	Saif 648 Jemler-257-9008
Johnson Walter K 3718 Duval-244-8742	Chidin 648 Jemler-257-9421
Johnson Ward L	Jonatis Mary 1208 Jan fer-256-0432
4930 Council Crest-233-1246	Jonas Dorothy H May
Johnson Warren 525 Linside blvd-249-4200	17 E Webster-256-7458
Johnson Wayne A	Jonas John J 5921 Mayhill dr-271-6152
1205 Painted Post dr-222-5077	Jonas John Jr 5162 Arden dr-271-9051
Johnson Wayne W 5054 Dorsett dr-271-8148	Jonas Rudi P 1012a Schrock rd-271-9-10
Johnson Watersale Co Inc	Jonas Tom 17 N Webster-256-7458
5113 Academy dr-222-5675	Jondrow James W
Johnson Vethur E 5105 Meloy dr-274-1268	101 Green Lake Pass-233-1781
Johnson Willard A	Jondrow M G 402 Pa-mach pl-236-1074
5401 Schluter rd-222-3531	Jonas Wayne E
Johnson Wm 209 N Harquette-249-5-61	4001 Treason dr-271-4623
Johnson Wm 21 Sherman ter-242-6-82	Jonas A 2407 E Johnson-248-3622
Johnson Wm Arthur 1350 Allied dr-271-3279	Jonas A L 3584 Beckenridge dr-271-4718
Johnson Wm C 1706 Madison-257-2632	Jonas A M 437 W Doty-257-4-68
Johnson Wm C 53 Walter-244-6252	Jonas Alfred W 4120 N Sherman dr-244-5198
Johnson Wm D 555 Highland rd-271-3418	Jonas Almaric C 718 Kent pl-271-6728
Johnson Wm D L 2437 Atlas dr-271-9194	Jonas Aha G 3419 O'Brien av-222-6-00
Johnson Wm Dexter 702 Owen rd-222-6105	Jonas Andra 109 Bay View-251-7-46
Johnson William E 617	Jonas B 31 E Garham-256-2-18
411 W Main-257-4715	Jonas B J 3014 Hooper dr-249-5624
Johnson Wm E Jr 6408 Keetha dr-236-6274	Jonas B L 570 Watsoning la-241-0-69
Johnson Wm H 2252 Stiles-244-0816	Jonas Barbara 1236 Jemler-256-6-54
Johnson Wm J 2403 Upham-270-87-0	Jonas Bernice 34 Peach dr-249-7-67
Johnson Wm R 2121 Kendall av-273-5424	Jonas Bill 620 W Paster rd-251-3-25
Johnson Wm T 714 Vera st-2-1-0735	Jonas Bruce G 2193 Linden av-241-5093
Johnson Wm W 4713 Maher av-272-7-95	Jonas Bryce
Johnson Willie 50 Gray av-231-19-3	623F Eagle Heights Apt-233-9-03
Johnson Yngue R 1-	Jonas C 3203 Almaric-249-2530
244-1524	Jonas C A H 311 E M.W.-257-4-69
Johnson's Howard	Jonas C G 1920 North-western av-241-2-72
See Howard Johnson's	Jonas C H 2327 Willard av-241-0-13
77 Sunset Strip-251-7733	Jonas C S 2402 Monroe-233-01-06
Johnson Douglas 3914 Rockwell dr-249-5188	Jonas Carolyn S 1101 Huger st-256-1640

Figure 3. Typical city directory listings for a city block at two dates two years apart.

Listing in 1964 by address

PARK AV -- From Barrett west to
1923 N 8th

- 303C Kette Jacob M
- 304C Rehauer Randolph A
- 306C Schlipper Peter F
- 308C Wick Walter W
- 309C Born Eldon K
- 311C Sell Geo
- 313C Pfister Walter J
- 314C Helms Ida Mrs
- 317C Keller Erwin O
- 319C Hirsch Philip
- 322C Wick Ashton
- 323C Jung Edgar

N 8th Intersect

Listing in 1964 by last name

Born Agnes Mrs sec County 4-M One
2208 Park av
Amanda (wid Jacob) h2004 Lake
Shore dr
Carter F (Louise) dept mgr Pross
Pub h1213 Main av
Clarence (Evelyn) pres Born's Mtr
Sales Inc r Siskoygan Falls
Edgar M (Lillian) serv eng Haysen
Mfg h1323 Mehrten av
Eldon K (Agnes) mldr Plastic
Engineering h1225 New Torkwood
Sch h208 Park av
Hiram H (Ruth K) business mgr
Snedden's Garage h2229 N 8th
Joe M (Helen) emp Kohler Co (K)
h1329 Erie av
Linda (wid Milford) h2219 S 11th
Lillian Mrs cash N C Franks Co
r RD
Minnie (wid Paul) h1811 S 8th

Listing in 1974 by address

PARK AVENUE--From Barrett west to
1923 N 8th

- 303 Kette Jacob M @ GLT-9928
- 304 Rehauer R A @ GLT-9244
- 306 Crosatto John J GLT-3760
- 308 Wick Blanche Mrs @ GLT-6379
- 309 Milsted Louis E GLT-9779
- 311 Sell Mabel B Mrs @ GLT-4084
- 313 Pfister Walter J @ GLT-2553
- 314 Johnson Carl V @ GLT-9515
- 317 Matthew L N GLT-5270
- 319 Hirsch Philip @ GLT-0485
- 322 Wick Ashton E @ GLT-3140
- 323 Jung Edgar J @ GLT-9589

Figure 4-1. SOCIAL FACTORS IN ASPIRATION AND ACHIEVEMENT Tracing Cover Sheet.

		000000---M	(8)	
Student's 1964 Address	JOHN BONES 111 MAIN STREET MILWAUKEE, SURVEY H.S.	WIS	26	<u>ALICE LISTED</u> Student's phone number
Student's Address Changes	<u>no John Bones in phone book</u>			
		000000---PM	(8)	
Parents' 1964 Address	RUTH C BONES 222 NORTH AVE MILWAUKEE,	WIS	26	<u>ALICE LISTED</u> Parents' phone number
Parents' Address Changes	<u>At Ruth Bones in phone book</u>			
Other leads to follow: <u>Bones, Thomas</u> <u>333 West Ave.</u> <u>phone</u> <u>414-888-1111</u>				
<u>Bones, William</u> <u>441 East Ave.</u> <u>phone</u> <u>414-777-2222</u>				
1957 Address:	1964 Follow-Up Information:			
	<u>West to Legerelle Tech</u>			
	<u>Tuland dist under for</u>			
	<u>Paul B Co</u>			

Figure 4-2. SOCIAL FACTORS IN ASPIRATION AND ACHIEVEMENT
Contact Record.

Call number to be filled in by interviewer ID# 000000

1 Date: 7/15 Interviewer: BLC
 BONES, THOS Relationship of contact 414-885-1111
 Name of contact Phone number
 7 PM
 Time started
 Outcome: NO RELATION - NO KNOWLEDGE OF RESPONDENT

2 Date: 7/15 Interviewer: BLC
 BONES, WILLIAM Relationship of contact 414-999-2222
 Name of contact Phone number
 7 PM
 Time started
 Outcome: NO ANSWER

3 Date: 7/16 Interviewer: TSH
 BONES, WILLIAM Relationship of contact 414-999-2222
 Name of contact Phone number
 3 PM
 Time started
 Outcome: NO RELATION - NO KNOWLEDGE OF RESPONDENT
 Check 1964 Information

Figure 4-3. SOCIAL FACTORS IN ASPIRATION AND ACHIEVEMENT
Contact Record.

Call number to be filled in by interviewer ID# 000000

4 Date: 7/20 Interviewer: TSH
 A and B Company FORMER EMPLOYER 414-666-5555
 Name of contact Relationship of contact Phone number
 10 AM
 Time started
 Outcome: RESPONDENT WORKED THERE UNTIL 5/67 -
 HE QUIT FOR EMPLOYMENT ELSEWHERE -
 CANNOT GIVE OUT ANY OTHER INFORMATION
 FROM PERSONNEL FILE

5 Date: 7/22 Interviewer: BLC
 Largeville Tech 414-333-1212
 Name of contact Relationship of contact Phone number
 8 AM
 Time started
 Outcome: NO RECORD OF JOHN BONES - HE
 WOULDN'T HAVE ONE UNLESS HE HAD LEADERS
 Tag Neighbors next

Date: Interviewer:
 Name of contact Relationship of contact Phone number
 Time started
 Outcome:

Figure 4-4. SOCIAL FACTORS IN ASPIRATION AND ACHIEVEMENT
Neighbors of Parent/Student in 1964.
(circle one)

ID# 000000Interviewer: TBCName RUTH C. BONESAddress 222 NORTH AVECity, State WIL WAUKEE, WISSame Address TIMOTHY TINKER414-000-2121Next door neighbors: (1) MELISSA MUDHEN224 NORTH AVE414-123-4567(2) ALEX SMART220 NORTH AVE 414-555-1212

Across the street: (1)

NO HOUSE NUMBERS(2) ON THE OPPOSITESIDE OF THE STREET

(3)

Figure 4-5. SOCIAL FACTORS IN ASPIRATION AND ACHIEVEMENT
Contact Record.

ID# 000000Call number to be filled
in by interviewer6 Date: 7/24Interviewer: BRCName of contact TINKER, TIMLIVES AT AD RES 414-000-2121

Relationship of contact Phone number

6 PM

Time started

Outcome: THINKS RUTH BONES HAD A DAUGHTERSHARON, THINKS JOHN MOVED TO SOUTHDAKOTA, THOUGHT RUTH MOVED TO AN APT.
BUT COULDN'T THINK OF SPECIFICS - DIDN'T KNOW
OF ANYONE WHO COULD HELP US7 Date: 7/24Interviewer: BRCName of contact MUDHEN, MELISSANEIGHBOR 414-123-4567

Relationship of contact Phone number

6 PM

Time started

Outcome: SAID RUTH DIED; DAUGHTER SHARONBELL LIVES ON 15TH STREET - PHONE 414 -710-12128 Date: 7/24Interviewer: BRCName of contact BELL SHARONSISTER 414-910-1212

Relationship of contact Phone number

6:30 PM

Time started

Outcome: JOHN BONES10 WEARY PLACEDENVER, COLORADO 80534303-111-2222

Figure 5. AVERAGE TIME SPENT FINDING EACH PERCENT

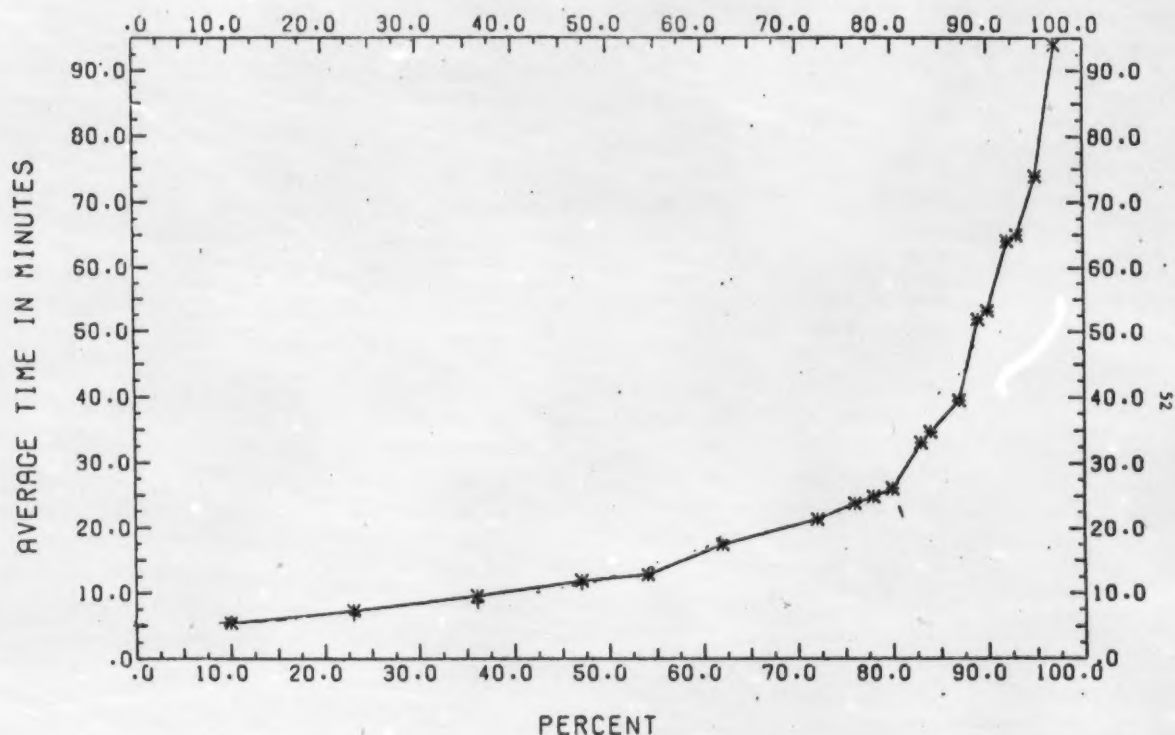


Table 1. Percentage Distribution of Final Status of Search by Sex, Education, Rural-Urban Residence in 1957, and Instate or Out-of-State Residence in 1964 and 1975*

	Inter- viewed	Re- fused	No Phone	De- ceased**	Outside USA	Not Found	Total	N
Male	89.22	4.59	1.83	1.15	1.15	2.06	100	(436)
Female	92.61	2.83	1.52	1.09	0.65	1.30	100	(460)
High School	91.40	3.95	2.09	1.16	0.23	1.16	100	(430)
Vocational or Some College	90.32	3.23	1.94	0.65	1.29	2.58	100	(310)
College Grad	91.03	3.85	0.0	1.92	1.92	1.28	100	(156)
1957 Rural***	95.22	2.39	1.19	0.30	0.30	0.60	100	(335)
1957 Urban	88.41	4.46	1.96	1.60	1.25	2.32	100	(561)
1964 Instate	90.98	4.37	1.60	1.16	0.15	1.75	100	(687)
1964 Out-of-State	90.91	1.44	1.91	0.96	3.35	1.44	100	(209)
1975 Instate	92.40	4.50	1.55	1.55**	0.0	0.0	100	(645)
1975 Out-of-State	91.63	1.67	2.09	0.0	3.35	1.26	100	(239)
Not Found	0.0	0.0	0.0	0.0	0.0	100	100	(12)

*This table represents the final outcome of the search, thus there are 3 individuals who were found, then lost again, bringing the total in the Not Found column to 15 rather than the 12 indicated in Tables 2, 3, and 4.

**In all tables the deceased were coded INSTATE in 1975.

***Cities with a population of less than 2500 were coded as rural.

Table 2. Percentage Distribution of Number of Telephone Calls by Sex, Education, Rural-Urban Residence in 1957, and Instate or Out-of-State Residence in 1964 and 1975.

	Number of Calls						Total	N
	1	2	3	4	5-10	11-52		
Male	38.99	18.35	10.78	7.57	14.45	9.86	100	(436)
Female	41.52	15.43	10.87	4.35	18.70	9.13	100	(460)
High School	42.79	17.21	10.93	5.81	16.98	6.28	100	(430)
Vocational or Some College	35.16	17.42	11.61	6.45	16.13	13.23	100	(310)
College Grad	43.59	14.74	8.97	5.13	16.67	10.90	100	(156)
1957 Rural	40.00	17.01	10.75	6.27	19.10	6.87	100	(335)
1957 Urban	40.46	16.76	10.87	5.70	15.15	11.05	100	(561)
1964 Instate	40.76	17.47	11.06	6.26	15.28	9.17	100	(687)
1964 Out-of-State	38.76	14.83	10.05	4.78	21.05	10.53	100	(209)
1975 Instate	43.88	17.52	11.01	5.27	15.35	6.98	100	(645)
1975 Out-of-State	32.64	15.90	10.88	7.53	20.50	12.55	100	(239)
1975 Not Found	0.0	0.0	0.0	8.33	8.33	83.33	100	(12)

Table 3. Percentage Distribution of Day Found by Sex, Education, Rural-Urban Residence in 1957, and Instate or Out-of-State Residence in 1964 and 1975.

	Early Search Days 000-026	Middle Search Days 027-059	Late Search Days 060-422	Not Found	Total	N
Male	83.72	6.88	7.80	1.61	100	(436)
Female	88.26	5.00	5.65	1.08	100	(460)
High School	90.93	3.49	4.64	0.93	100	(430)
Vocational or Some College	82.58	6.13	9.35	1.93	100	(310)
College Grad	79.49	12.18	7.05	1.28	100	(156)
1957 Rural	88.06	5.67	5.67	0.59	100	(335)
1957 Urban	84.85	6.06	7.30	1.78	100	(561)
1964 Instate	88.36	4.95	5.24	1.45	100	(687)
1964 Out-of-State	78.47	9.00	11.48	0.95	100	(209)
1975 Instate	91.78	4.34	3.88	0.0	100	(645)
1975 Out-of-State	74.90	10.46	14.64	0.0	100	(239)
Not Found	0.0	0.0	0.0	100.0	100	(12)

Table 4. Percentage Distribution of Method by Which Found by Sex, Education, Rural-Urban Residence in 1957, and Instate or Out-of-State Residence in 1964 and 1975.

	Parent Search	Student Search	Alumni	Business	Neighbors	Post Office	Military	Informants	Not Found	Total	N
Male	82.34	8.49	2.06	2.06	1.61	0.46	0.69	0.69	1.61	100	(436)
Female	82.17	11.09	2.39	0.87	1.30	0.22	0.0	0.87	1.09	100	(460)
High School	83.72	12.33	0.0	1.40	0.70	0.47	0.23	0.47	0.70	100	(430)
Vocational or Some College	80.97	9.03	1.29	2.26	2.58	0.32	0.32	0.97	2.26	100	(310)
College Grad	80.77	4.49	10.26	0.0	1.28	0.0	0.64	1.28	1.28	100	(156)
1957 Rural	84.78	8.36	2.09	0.90	0.30	0.90	0.30	1.79	0.60	100	(335)
1957 Urban	80.75	10.70	2.32	1.78	2.14	0.0	0.36	0.18	1.78	100	(561)
1964 Instate	82.53	11.35	0.87	1.46	1.31	0.29	0.0	0.73	1.46	100	(687)
1964 Out-of-State	81.34	4.78	6.70	1.44	1.91	0.48	1.44	0.96	0.96	100	(209)
1974 Instate	84.34	12.09	1.09	0.78	0.78	0.0	0.0	0.95	0.0	100	(645)
1974 Out-of-State	80.35	4.18	5.44	3.35	3.35	1.26	1.26	0.42	0.0	100	(239)
Not Found	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100	(12)

Table 5. Percentage Distribution of Final Status of Search by Day on Which Found.*

	Interviewed	Refused	No Phone	Deceased	Outside USA	Total	N
Early Search Days 000-026	94.14	3.64	0.91	0.91	0.39	100	(769)
Middle Search Days 027-059	92.45	1.89	1.89	1.89	1.89	100	(53)
Late Search Days 060-422	71.18	6.77	11.86	3.38	6.77	100	(59)

*The 15 individuals who were not found have been omitted from this table.